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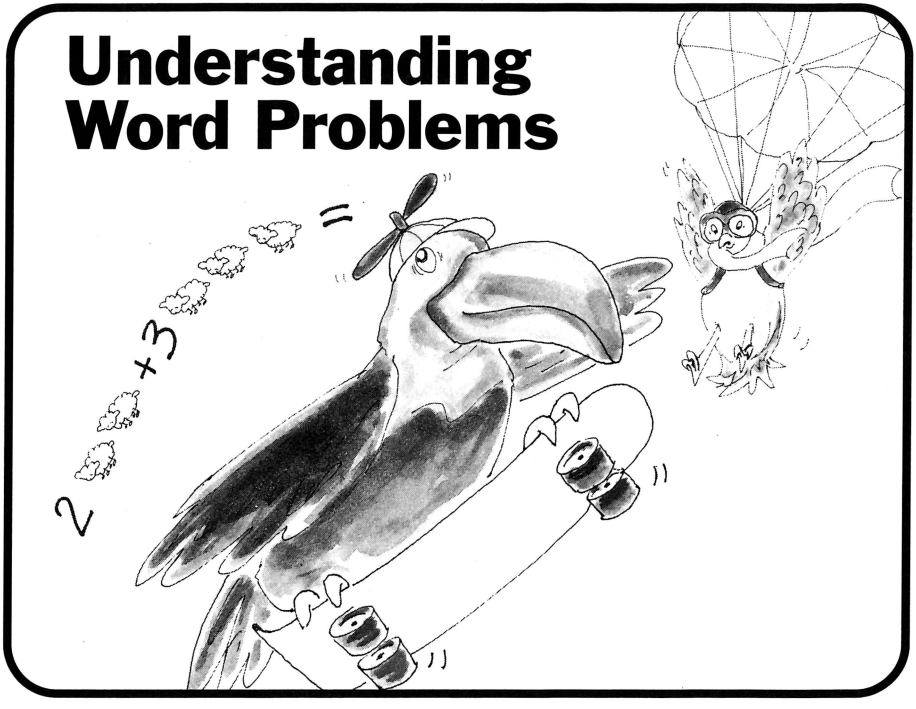
Troll MICRO

COURSEWARE
USER'S GUIDE

FIRST MATH ADVENTURES

Understanding Word Problems



Troll Micro-Software

FIRST MATH ADVENTURES
Understanding Word Problems
Micro User's Guide

System Requirements

1. Apple IIGS, IIc, IIe, II+, II (with Applesoft and at least 48K of RAM), or Macintosh LC (with Apple IIe Card).
2. One disk drive.
3. A TV set or video monitor (color is recommended).

How to Use This Program

FIRST MATH ADVENTURES: Understanding Word Problems is an interactive program designed to introduce students to addition and subtraction number sentences, number stories, and basic word problems. In the first activity, students review basic addition and subtraction facts and create their own number sentences. In the second activity, they complete and solve number stories. In the third activity, they solve simple word problems.

Getting Started

Insert the program disk into the disk drive with the label facing up and the oval cutout facing away from you. Close the door on the disk drive and turn on the monitor and computer. The red light on the disk drive will light up as the program loads.

NOTE: Some Apple computers require that PR#6 be typed before the program begins loading.

When the program has loaded, the Troll logo will appear, followed by the title. The student is then asked whether sound is desired. Then the menu appears.

1. NUMBER SENTENCES
2. NUMBER STORIES
3. YOU TOO CAN DO WORD PROBLEMS

The student presses a number from 1 to 3 to select an activity, which will load and run. The student may press C to see the credit screen or Q to quit the program. The teacher may press CONTROL T when the menu is displayed to use Teacher Options (described below).

Special Keys

	H	**Display Help screen**
CONTROL	X	**Return to Menu**
CONTROL	O	**Turn sound On or Off**

In the first two activities, pictures of the keys that are used in the game (space bar, left arrow key, right arrow key) appear at the bottom of the screen. An animated hand uses these keys to guide the student through the game.

The Activities

NOTE: Since negative numbers are not used in this program, subtracting a greater number from a lesser number is not allowed. If the student attempts to set up a subtraction problem which will produce a negative number, the program will direct the student to another choice.

NUMBER SENTENCES

Students review basic addition and subtraction facts and create their own number sentences with the help of an animated character.

First, the student selects the type of arithmetic to be used in the activity. Pressing 1 selects addition, 2 selects subtraction, and 3 selects a mixture of both addition and subtraction.

The question mark key may be used during the game to display reminders, additional instructions, and the math problem in vertical format.

Introductory material on number sentences is presented. Then the activity begins. The student uses the animated character of a pigeon to create number sentences. The student selects an object to use in a number sentence by moving the pigeon to the desired object, then pressing the space bar. In the same way, the student then selects the numbers to use in the number sentence. The number sentence is set up on the screen with the selected objects and numbers. In addition sentences, the program guides the student in counting the total objects. In subtraction sentences, the program guides the student in counting the number of objects taken away. The student is directed to select the answer with the arrow keys and the space bar. The student gets two tries. After two incorrect responses, the correct answer is indicated.

NUMBER STORIES

Students are introduced to number stories by creating their own number stories with the help of an animated character.

First, the student selects the type of arithmetic to be used in the activity. Pressing 1 selects addition, 2 selects subtraction, and 3 selects a mixture of both addition and subtraction.

Introductory material on number stories is presented. Then the activity begins. The student uses the animated character of a duck to create number stories. The student selects an object to use in a number story by moving the duck to the desired object, then pressing the space bar. There are key words in the number story that show whether addition or subtraction should be used. These key words are highlighted. If mixed addition and subtraction stories are being presented, the student is asked to determine which operation to use. The student indicates the correct operation with the arrow keys and the space bar. The student selects the numbers to use in the number sentence, determines the answer, and selects the answer with the arrow keys and the space bar. The student gets two tries. After two incorrect responses, the correct answer is indicated.

YOU TOO CAN DO WORD PROBLEMS

Students solve word problems with the help of an animated character.

Introductory material on word problems is presented. Then the activity begins. A word problem is displayed. The student's attention is directed to key words in the problem. The student is asked to determine whether addition or subtraction should be used. The student indicates the correct operation by pressing A for addition or S for subtraction. If the student's response is incorrect, the correct response is indicated. A Fact Card and Answer Box appear. Pressing the question mark key displays the math problem in vertical format. Three numbers are displayed as possible answer choices across the top of the screen. The student determines the answer to the word problem and selects the answer from these choices with the arrow keys and the space bar. If the student's choice is incorrect, the correct choice is indicated, and the student's attention is directed to the Fact Card, where the numbers from the word problem and the operation are displayed as a math problem in vertical format. The answer is displayed and reinforced by blinking simultaneously with the answer in the Answer Box.

TEACHER OPTIONS

To use Teacher Options, press CONTROL T at any time when the menu is displayed.
First select the activity you wish to customize.

1. NUMBER SENTENCES
2. NUMBER STORIES
3. YOU TOO CAN DO WORD PROBLEMS

Press a number from 1 to 3, then press RETURN.
The options for each activity are described below. For each option, the current setting is highlighted. You can keep the current setting by pressing RETURN. To change the setting, press the number of the desired setting, then press RETURN.

NUMBER SENTENCES

HOW SHOULD THE NUMBER CHOICES BE DISPLAYED? The student moves the pigeon across a list of number choices with the arrow keys and presses the space bar to select a number. The list of numbers may be displayed in order or randomly.

1. IN NUMERICAL ORDER
2. RANDOMLY

Press 1 or 2, then press RETURN.

HOW MANY SENTENCES PER ROUND? The student may do from 2 to 9 sentences per round. Press a number from 2 to 9, then press RETURN.

NUMBER STORIES

HOW SHOULD THE NUMBER CHOICES BE DISPLAYED? The student moves the duck across a list of number choices with the arrow keys and presses the space bar to select a number. The list of numbers may be displayed in order or randomly.

1. IN NUMERICAL ORDER
2. RANDOMLY

Press 1 or 2, then press RETURN.

HOW MANY STORIES PER ROUND? The student may do from 2 to 9 stories per round. Press a number from 2 to 9, then press RETURN.

YOU TOO CAN DO WORD PROBLEMS

HOW MANY PROBLEMS PER ROUND? The student may do from 2 to 9 problems per round. Press a number from 2 to 9, then press RETURN.

WHAT RANGE OF NUMBERS SHOULD BE USED IN THE PROBLEMS? You may specify one of five ranges for the numbers in the problems.

1. 0 to 19
2. 0 to 39
3. 0 to 59
4. 0 to 79
5. 0 to 99

Press a number from 1 to 5, then press RETURN.

After you finish customizing an activity, you may choose another activity, or press CONTROL X to return to the menu. (You may press CONTROL X to return to the menu at any time while using Teacher Options. The options you have selected up until you return to the menu will take effect.)

Care of Disks

The micro-software program is recorded on the magnetic coating of the program disk, which is permanently sealed inside a protective cover. Do not touch the surface of the disk that is visible through the oval cutout in the protective cover. When the disk is not in use, it should be returned to its own envelope and stored in a safe place away from dust, magnetic fields, and temperature and humidity extremes. Do not bend, staple, or write on the disk or its protective cover with a ball point pen or pencil.

Warranty

Troll Associates provides a lifetime guarantee on Troll micro-software disks as long as the product is in production. If any program fails to load or run, simply return it to us for a free replacement.

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